

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 1-31 and 38-51 are pending, claims 1, 11, 23, 25, 38 and 46-49 having been amended and claims 50-51 having been added.

Applicants wish to thank the Examiner for indicating that claim 26 contains allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Examiner rejected claims 1-3, 5-7, 10, 11-13, 15-17, 20-25, 27-31, 38, 44-46, 48 and 49 under 35 U.S.C. §102(b) as allegedly being anticipated by Japanese Patent Application No. JP 402127877A to Kurahashi (“Kurahashi”). Applicants submit that amended claims 38, 40, 46, 47, 48 and 49 obviate the rejection. Applicants traverse the rejection with respect to the remaining claims; however, the claims were amended to correct typographical errors. Claim 25 was amended to more broadly recite the invention.

Kurahashi discloses a system for taking a still picture using a fisheye lens, resulting in a distorted image, and for processing the image to correct the image based on previously stored distortion information. As shown in Figure 3, the image data is divided into nine areas stored in an image data memory. A fisheye lens distortion rate memory part stores the fisheye lens distortion rate corresponding to the memory data of each of the nine data areas.

Claims 1-8 and 32 recite a signal processor for converting digital images for use in an imaging system, comprising a control input for receiving a signal representing a selection of a portion of the image, wherein the selection ranges across the field-of-view. As mentioned above,

Kurahashi discloses selecting a portion only from among nine predefined areas, and does not disclose the selection ranging across the field-of-view.

Claims 11 and 12-20 and 33 recite a method of converting a digital image for use in an imaging system comprising selecting a portion of the image, wherein the selecting step selects the portion from across the field-of-view. For the reasons mentioned above, Kurahashi does not disclose this limitation.

Claim 21 recites a method of converting a digital image for use in an imaging system comprising converting digital data representing a selected portion of a partial spherical image into digital data representing a perspective-corrected view for display, wherein the selected portion is chosen across the field-of-view. For the reasons mentioned above, Kurahashi does not disclose this limitation.

Claims 22 and 34 recite a signal processor for converting digital images for use in an imaging system comprising a control input for receiving a signal representing a selection of a viewing angle, wherein the viewing angle is chosen from angles varying across the field-of-view. Kurahashi discloses selecting a portion from one of nine predefined areas. Kurahashi says nothing about a control input for receiving a signal representing a selection of a viewing angle, wherein the viewing angle is chosen from angles varying across the field-of-view.

Claims 23 and 35 recite a method of converting digital images for use in an imaging system comprising selecting a viewing angle, wherein the viewing angle is chosen from angles varying across the field-of-view. Applicants submit that claims 23 and 35 are not anticipated by Kurahashi at least for the reasons discussed above regarding claim 22.

Claim 24 recites a signal processor for use in an imaging system comprising a control input for receiving a signal representing a selection of a portion of an image having the

properties of a circular field-of-view being substantially in focus, wherein the selection is chosen across the field-of-view. For the reasons mentioned above, Applicants submit that Kurahashi does not disclose this limitation.

Claim 25 recites a memory for a signal processor comprising a data structure, responsive to a control input representing a selection of a portion of an image stored in the memory, wherein the selection is chosen across the field-of-view. The data structure represents an orthogonal set of transformation algorithms. For the reasons mentioned above, Applicants submit that Kurahashi does not disclose such a data structure responsive to a control input representing a selection of a portion, wherein the selection is chosen across the field-of-view.

Claims 27 and 36 recite a memory for a signal processor, comprising a data structure, responsive to a control input representing a selection of a portion of an image. The data structure represents an orthogonal set of transformations.

Kurahashi discloses the fisheye distortion rate memory part and the fisheye image correction circuit, but does not disclose or suggest anything about a data structure representing an orthogonal set of transforming algorithms. In fact, nothing is said about an orthogonal set of transforming algorithms.

Claims 28-31 and 37 recite a signal processor for converting digital images, comprising a control input for receiving a signal representing a selection of a portion of the input image, wherein the selection is chosen from across the field-of-view. For the reasons discussed earlier, Kurahashi does not disclose such a feature.

Claims 38-45 recite a method for displaying a portion of an image having a field-of-view greater than or equal to 180°, comprising converting at least one selected portion to a perspective corrected image in real-time in response to information included in the input. Kurahashi

discloses selecting one of nine predefined areas and performing a correction based on the areas selected. Therefore, the input in Kurahashi (for example, area 2) indicates the one or more areas selected. The converting, in Kurahashi, is performed based on predetermined corrections corresponding to the selected areas. Kurahashi does not disclose converting at least one selected portion to a perspective-corrected image in real-time in response to and based on information included in the input.

Claim 39 recites input being a designation of a magnification. Kurahashi does not disclose this feature.

Claim 46 recites an apparatus for displaying a portion of an image having a field-of-view greater than or equal to 180°, comprising converter means for converting the at least one selected portion to a perspective corrected image in real-time in response to and based on information included in the input. For the reasons mentioned above regarding claims 38-45 Kurahashi does not disclose this limitation.

Similarly, claim 47 recites an apparatus for displaying a portion of an image, having a field-of-view greater than or equal to 180°, comprising a converter for converting at least one selected portion to a perspective corrected image in real-time in response to and based on information included in the input. For the reasons mentioned above regarding claims 38-45, Applicants submit that Kurahashi does not disclose such a feature.

Claim 48 recites a method for obtaining a wide-angle image having a field-of-view greater than or equal to 180°, comprising storing a wide-angle image in a format for subsequent display, wherein the format is capable of transformation from the wide-angle image to a perspective-corrected image in real-time responsive to and based on information included in an input. Similarly, claim 49 recites an apparatus for providing a wide-angle image comprising a

field-of-view greater than or equal to 180°, comprising a memory for storing the wide-angle image in a format for subsequent display, wherein the format is capable of transformation from the wide-angle image to a perspective-corrected image in real time responsive to and based on information included in an input. For the reasons discussed above regarding claims 38-45, Applicants submit that the claims are not anticipated by Kurahashi. Therefore, Applicants submit that Kurahashi does not recite each and every feature of claims 48 and 49.

For the reasons mentioned above, Applicants submit that the above-mentioned claims are not anticipated by Kurahashi and respectfully request that the rejection be withdrawn.

The Examiner rejected claims 4, 8, 9, 14, 18, 19, 39-43 and 47 under 35 U.S.C. §103(a) as allegedly being unpatentable over Kurahashi. Applicants submit that amended claim 38, 40-44 and 47 obviate the rejection. Applicants respectfully traverse the rejection with respect to the remaining claims; however, the claims were amended to correct typographical errors.

Claims 4, 8, 9, 14, 18, 19, 39-43 and 47 depend from the previously discussed independent claims, either directly or indirectly and are patentable over Kurahashi at least for the reasons discussed above, for reciting features which are neither disclosed nor suggested by Kurahashi.

Further, the Examiner rejected claims 9, 19 and 39, which refer to the feature of magnification, suggesting that it is well known that any image must be enlarged in order to get a close look at the image. However, Kurahashi does not disclose or suggest how to perform magnification and how to perform correction of a distorted image.

For the reasons mentioned above, Applicants submit that claims 4, 8, 9, 14, 18, 19, 39-43 and 47 are patentable over Kurahashi and respectfully request that the rejection be withdrawn.

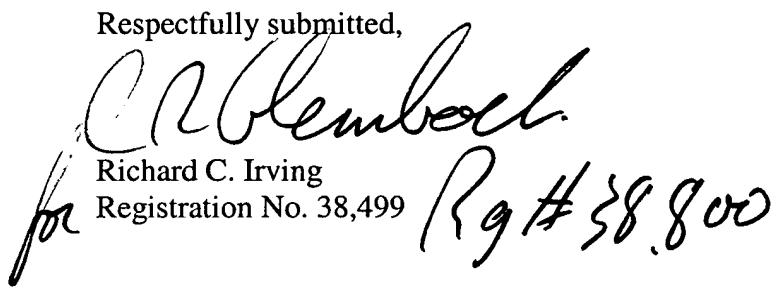
New claims 50 and 51 depend from claim 1 and are patentable at least for the reasons mentioned above regarding claim 1.

Applicants submit that the application is now in condition for allowance and a notice to that effect is earnestly solicited.

Applicants representative respectfully requests that the Examiner contact him at the number indicated below if he has any questions regarding this amendment, in order to further advance prosecution of this case.

Filed concurrently herewith is a Petition and Fee Letter for a Two Month Extension of Time and authorization to charge the requisite fee to Deposit Account No. 19-0733. The Patent Office is further authorized to charge or credit any amounts deemed necessary to keep this application in force.

Respectfully submitted,


for
Richard C. Irving
Registration No. 38,499
Rg#38,800

Banner & Witcoff, Ltd.
1001 G Street, N.W.
Washington, D.C. 20001-4597
Phone: (202) 508-9100
Fax: (202) 508-9299

Date: June 4, 2001